

## I. GENERAL

## PROJECT DESCRIPTION

This project involves the reconstruction of an existing signal to provide for additional through and left turn lanes along US Route 1 (Baltimore Avenue) and a new median along US Route 1. The existing signal poles on the north-east and south-west sides of the intersection will be removed and new signal poles and mast arms will be installed. The existing signal pole and mast arm on the north-west side of the intersection will remain. Detection cameras will be installed for the left turn lanes along US 1 and all of the "at signal" lanes for the minor roads. Micro-probes will be used for the advanced detection along US Route 1.

## II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA 8-phase, semi-actuated mode, with the East-West approaches running concurrently.

## III. CONTROLLER REQUIREMENT

- Re-use a fully-traffic-actuated, eight-phase controller in the existing NEMA size "6" base mounted cabinet. Video interface equipment will be installed.

## IV. SPECIAL NOTES

- The Maryland State Highway Administration Signal Shop shall be responsible for installing all new equipment in the cabinet.

## PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CHARLIE WATKINS  
DISTRICT ENGINEER  
(301) 513-7311

MR. DENNIS McMAHON  
ADE CONSTRUCTION  
(301) 513-7345

MR. RICHARD DAFF  
DIVISION CHIEF, TOD  
(410) 787-7630

MR. MAJID SHAKIB  
ADE TRAFFIC  
(301) 513-7358

MR. BARRY KING  
CHIEF, TEDD  
(410) 787-4011

MR. EDWARD RODENHIZER  
CHIEF OF SIGNAL OPERATIONS  
(410) 787-7652

## EQUIPMENT LIST A

- A. THE CONTRACTOR SHALL FURNISH THE INTERFACE EQUIPMENT FOR THE CAMERAS AND SHA SHALL INSTALL THE INTERFACE EQUIPMENT FOR THE CAMERAS.

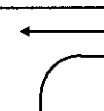
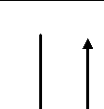
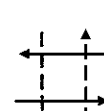
## EQUIPMENT LIST B

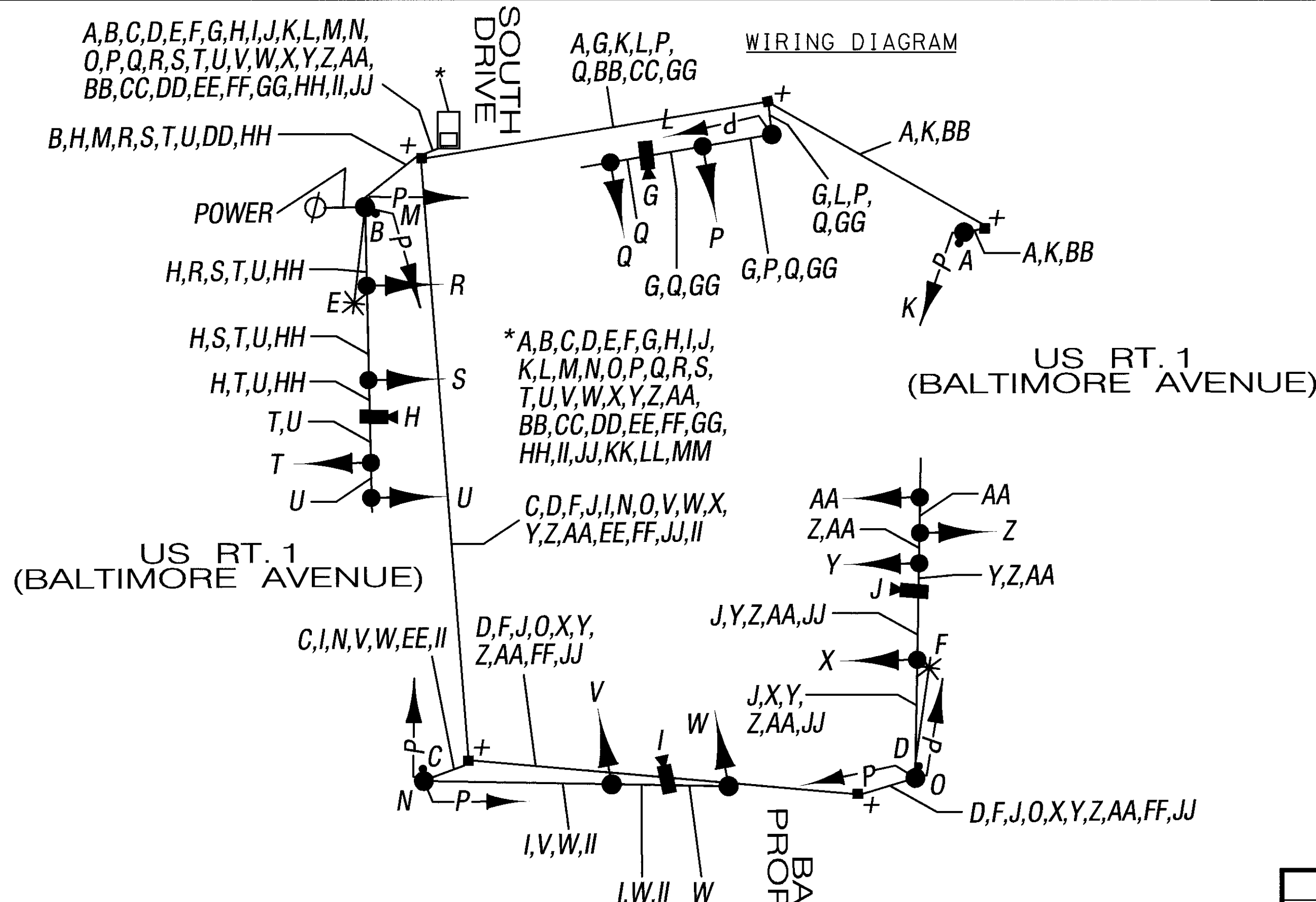
- B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

## QUANTITY DESCRIPTION

LS	MAINTENANCE OF TRAFFIC
4 CY	TEST PIT EXCAVATION
19 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8 EACH	FURNISH AND INSTALL 12 IN. ONE-WAY, THREE SECTION (R,Y,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING.
4 EACH	FURNISH AND INSTALL 12 IN. ONE-WAY, THREE SECTION (R,A,Y,G,A) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING.
1 EACH	FURNISH AND INSTALL 12 IN. ONE-WAY, TWO SECTION (WALK, DON'T WALK) PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR PEDESTAL POLE MOUNTING AND CUTAWAY VISORS.
7 EACH	FURNISH AND INSTALL 12 IN. ONE-WAY, TWO SECTION (WALK, DON'T WALK) PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM POLE MOUNTING AND CUTAWAY VISORS.
4 EACH	FURNISH AND INSTALL PEDESTRIAN PUSHBUTTON AND R10-4(2) SIGN - "PUSHBUTTON TO CROSS BALTIMORE AVE."
83 SF	FURNISH AND INSTALL SHEET ALUMINUM SIGNS <ul style="list-style-type: none"><li>- 3 EACH R3-5L SIGN (30" X 36") - MAST ARM MOUNT</li><li>- 4 EACH D3-2 SIGN (VAR. X 16") - MAST ARM MOUNT</li><li>- 1 EACH R3-2 SIGN (30" X 30") - MAST ARM MOUNT</li></ul>
6 EACH	FURNISH AND INSTALL 3/4 IN. X 10 FT. GROUND ROD
1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 38 FT. MAST ARM
3 EACH	FURNISH AND INSTALL MAST ARM POLE AND 60 FT. MAST ARM
2 EACH	FURNISH AND INSTALL 20 FT. LIGHTING ARM FOR TRAFFIC SIGNAL STRUCTURE
2 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
590 LF	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR (NO. 14 AWG)
380 LF	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR TYPE T/C (NO. 12 AWG)

PHASING  
SEQUENCE  
CHART

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	3	4	7	8	9	10	11	12	
PHASE 02 & 06	G	G	G	G	R	R	R	R	
PHASE 02 & 06 CHANGE	Y	Y	Y	Y	R	R	R	R	
PHASE 04 & 08	R	R	R	R	G	G	G	G	
PHASE 04 & 08 CHANGE	R	R	R	R	Y	Y	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	



## EQUIPMENT LIST B CONTINUED

- B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

QUANTITY	DESCRIPTION
10 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
300 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT (SLOTTED)
660 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
1 EACH	FURNISH AND INSTALL 10 FT. BREAKAWAY PEDESTAL POLE
9 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
LS	REMOVE AND DISPOSE OF EXISTING MATERIALS
30 LF	FURNISH AND INSTALL ELECTRICAL CABLE-1 CONDUCTOR (NO. 4 AWG)
2840 LF	FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO.14 AWG)
620 LF	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
4 EACH	FURNISH AND INSTALL CAMERA ASSEMBLY
1020 LF	FURNISH AND INSTALL ELECTRICAL CABLE-3 CONDUCTOR (NO. 14 AWG)

## EQUIPMENT LIST C

- C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

TS-2

A,B,C,D  
E,F  
G,H,I,J,K,L  
M,N,O,P,Q,R,S,T,  
U,V,W,X,Y,Z,AA  
BB,CC,DD,EE,FF  
GG,HH,II,JJ  
KK,LL,MM  
+

2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)  
2-CONDUCTOR ELECTRICAL CABLE TYPE T/C (NO. 12 A.W.G.)  
3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)  
STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)  
POWER SERVICE FOR CAMERA  
1-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)  
3/4 IN. X 10 FT. GROUND ROD



ENGINEERING-PLANNING-EARTH SCIENCES-SURVEYING  
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ANNAPOLIS, MD - BALTIMORE, MD - ATLANTA, GA - TAMPA, FL - FARMINGTON, CT - WEST PALM BEACH, FL  
ROCKVILLE, MD - RALEIGH, NC - FREDERICKSBURG, VA - MECHANICSBURG, PA - ST. PETERSBURG, FL

## REVISIONS

©MAST ARM POLE RELOCATED DUE TO GEOMETRIC IMPROVEMENTS 7/02



**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**  
*Office of Traffic & Safety*  
**TRAFFIC ENGINEERING DESIGN DIVISION**  
Traffic Signal Plan (MOT Phases 1A, 1B & 2)  
**US RT. 1 (BALTIMORE AVENUE) & SOUTH DRIVE/BARC**

DRAWN BY: RICHARDSON  
CHECKED BY:  
SCALE: 1" = 20'  
DATE: AUGUST 3, 1973

F.A.P. NO. U-902-1(22)  
S.H.A. NO. P-323-003-385  
COUNTY: PRINCE GEORGE'S  
LOG MILE: 16000106.75

TS NO. 998 A-60  
T.I.M.S. NO. 241

SHEET NO. 14 OF 22